

### **REMARKS/ARGUMENTS**

This Amendment is responsive to the Final Office Action dated June 5, 2007. Claims 1-5 and 9-23 were pending in the application with claims 19-29 being withdrawn from consideration. In the Final Office Action, claims 1-5, 9-18 and 30-33 were rejected. Claims 1-5, 9-18 and 30-33 remain for consideration.

Applicant submits that claims 1-5, 9-18 and 30-33 are in condition for allowance and requests withdrawal of the rejections in light of the following remarks.

#### **A. Claim Rejections Under 35 U.S.C. §112, first paragraph**

Claims 1-5, 9-17 and 30-32 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Specifically, the Examiner stated that the specification as originally filed does not provide support for the limitation that "the film or coated laminate has a minimum moisture vapor transmission rate of greater than 20 g/m<sup>2</sup>/day but less than 500 g/m<sup>2</sup>/day."

Applicant respectfully rebuts the above statements because it is well established that the invention claimed need not be described *ipsis verbis* in order to satisfy the disclosure requirement of § 112. *In re Lukach*, 442 F.2d 967, 169 USPQ 795, 796 (CCPA 1971).

The limitation regarding the minimum moisture vapor transmission rate of greater than 20 g/m<sup>2</sup>/day but less than 500 g/m<sup>2</sup>/day can be found on page 3, paragraph [0010]. In order for a material to be "breathable," it must have a minimum moisture vapor transmission rate of about 6.7 g/100 sq.in/24 hours or greater which is equivalent to 1.039 g/m<sup>2</sup>/day or greater. The breathability range for the claimed film is 20 g/m<sup>2</sup>/day but less than 500 g/m<sup>2</sup>/day, which is well within the breathability range taught in the specification. Thus, in accordance with the term

"breathable," there is clear and adequate support in the specification as filed for the recitation of a moisture vapor transmission rate of greater than 20 g/m<sup>2</sup>/day but less than 500 g/m<sup>2</sup>/day.

In the rejection, the Examiner has merely concluded that there is a lack of literal support without including any basis for such a conclusion. This argument is insufficient to reject a claim under § 112, first paragraph. If lack of literal support alone were enough to support a rejection under § 112, first paragraph, then the statement of *In re Lukach*, supra, that "the invention claimed does not have to be described in *ipsis verbis* in order to satisfy the description requirement of § 112," is empty verbiage.

Accordingly, the burden of showing that the claimed invention is not described in the specification rests on the PTO, and it is up to the PTO to give reasons why a description not in *ipsis verbis* is insufficient. Here, Examiner admits that the specification provides support for a minimum value for the MVTR. Applicants have merely claimed an upper value for the MVTR which is clearly supported by the specification. The Examiner, however, has given no reason other than lack of literal support for the 112 rejection.

Applicants therefore believe the above 112 rejection is improper and respectfully ask that the rejection to be withdrawn.

**B. Claim Rejections Under 35 U.S.C. § 103(a)**

1. Claims 1-2, 4-5, 10, 12-14, 17, 18, 30 and 32-33 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,645,336 to Albertone et al. (hereafter "Albertone") in view of WO 9637668 and U.S. Patent No. 5,691,034 to Krueger (hereafter "Krueger").

2. Claim 3 was rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,645,336 to Albertone et al. (hereafter "Albertone") in view

of WO 9637668 and U.S. Patent No. 5,691,034 to Krueger (hereafter "Krueger") as set forth above, and further in view of U.S. Patent No. 4,511,619 to Kuhnel et al. (hereafter "Kuhnel").

3. Claims 11 and 15 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,645,336 to Albertone et al. (hereafter "Albertone") in view of WO 9637668 and U.S. Patent No. 5,691,034 to Krueger (hereafter "Krueger") as set forth above, and further in view of U.S. Patent No. 6,300,257 to Kirchberger et al. (hereafter "Kirchberger").

4. Claim 16 was rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,645,336 to Albertone et al. (hereafter "Albertone") in view of WO 9637668 and U.S. Patent No. 5,691,034 to Krueger (hereafter "Krueger") as set forth above, and further in view of EP 1,245,620.

5. Claims 1-2, 4-5, 10, 12-14, 17, 18, 31 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,645,336 to Albertone et al. (hereafter "Albertone") in view of WO 9637668 and U.S. Patent No. 4,282,283 to George et al. (hereafter "George").

6. Claim 3 was rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,645,336 to Albertone et al. (hereafter "Albertone") in view of WO 9637668 and U.S. Patent No. 4,282,283 to George et al. (hereafter "George") as set forth above, and further in view of U.S. Patent No. 4,511,619 to Kuhnel et al. (hereafter "Kuhnel").

7. Claims 11 and 15 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,645,336 to Albertone et al. (hereafter "Albertone") in view of WO 9637668 and U.S. Patent No. 4,282,283 to George et al. (hereafter "George") as

set forth above, and further in view of U.S. Patent No. 6,300,257 to Kirchberger et al. (hereafter "Kirchberger").

8. Claim 16 was rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,645,336 to Albertone et al. (hereafter "Albertone") in view of WO 9637668 and U.S. Patent No. 4,282,283 to George et al. (hereafter "George") as set forth above, and further in view of EP 1,245,620.

Applicant submits that independent claims 1 and 18 are patentable over Albertone, Kuhnel, Kirchberger, WO 9637668, EP 1,245,620, Krueger and George -- either taken alone or in combination.

Applicant's invention as recited in the independent claims (Claims 1 and 18) are directed toward a non-asphaltic underlayment. For example, independent claim 1 specifies that the underlayment comprises a glass fiber-based substrate in which at least one surface thereof comprises a coatable laminate or a breathable thermoplastic film having a minimum moisture vapor transmission rate of greater than 20 g/m<sup>2</sup>/day but less than 500 g/m<sup>2</sup>/day. Claim 1 further specifies that an adhesion improvement component is added to the non-asphaltic underlayment to improve adhesion between the breathable thermoplastic film or coated laminate and the glass fiber-based substrate. (See paragraphs [0034]-[0037]).

Applicant notes that tie layers are not claimed in the formation of the non-asphaltic underlayment of independent claims 1 or 18. (See Figures 1 and 2; Page 5, ¶ 20 and 21). The use of tie layers, however, is described in a third embodiment of the present invention but this embodiment is claimed in dependent claims 13-15 and not in independent claims 1 or 18. (See Figure 3, ¶ 22).

Albertone, Kuhnel, Kirchberger, WO 9637668, EP 1,245,620, Krueger and George do not disclose an adhesion improvement component that is added to the non-asphaltic underlayment so that adhesion between the breathable thermoplastic film or coated laminate and the glass fiber-based substrate is improved.

Examiner states that "Albertone...teaches how to make [a] breathable film and teaches that the fabric layer can be 'any fabric'." Examiner also admits that Albertone "does not specifically teach that the substrate is a glass fiber fabric." Examiner then relies on WO '668 for the teaching that mineral fibers are equivalent to organic fibers. WO '668, however, merely mentions that the support layer may be a mineral fiber but does not teach or suggest to one skilled in the art how to adhere a breathable thermoplastic film to the glass fiber as claimed in claim 1 of the application.

Based on these references, Examiner believes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed a glass fiber substrate as the fibrous substrate in Albertone. But even taking the above as true, if one of ordinary skill in the art combined the breathable film of Albertone with the mineral fibers of WO '688 and substituted these into the present invention, the combination as presented by the Examiner would not work because the breathable film of Albertone would not readily adhere to the mineral fibers of WO '688.

Applicants working with breathable thermoplastic film and glass fiber-based substrate found that the breathable thermoplastic film did not readily adhere to the glass-substrate. To overcome this problem two methods were discovered. The first was the addition of a tie layer. The problem with adding a tie layer, however, is that varying the thickness of the materials layered on the substrate has a direct impact on the MVTR of the underlayment.

So, in order to decrease the thickness of the underlayment a second method was found. Applicants found that adding certain components to either the film or the glass substrate can improve adhesion characteristics. Accordingly, Applicants added an adhesion improvement component directly to the film and/or substrate and eliminated the need for the tie layer.

In contrast, in order to have proper adhesion Albertone, Krueger and George disclose the use of tie layer. These tie layers add to the thickness of the underlayment and therefore teach away from the underlayment of the present invention.

Kuhnel, Kirchberger and EP '620 also do not teach or suggest to one skilled in the art how to adhere a breathable thermoplastic film to the glass fiber as claimed in claim 1 of the application.

Furthermore, Applicants believe that the Examiner is applying an improper "obvious to try" rationale in support of an obviousness rejection. That is, Examiner is trying to combine the film of Albertone with a glass substrate. But this combination is improper because (1) Albertone does not give any indication of which non-organic materials readily adhere to the film of Albertone and (2) Albertone does not give any direction as to which non-organic materials are likely to be successful. Albertone merely provides a reader with a general guidance that fibers other than those specifically described in the specification may be used in conjunction with the film but Albertone does not disclose how to achieve the combination. (See MPEP 2145(X)(B)). (WO '668 also does not give any indication of how to adhere the film of Albertone to a mineral fiber.) Applicants therefore believe that Examiner's argument merely amounts to an "obvious to try" rational and respectfully requests the rejection be withdrawn.

Since Albertone, Kuhnel, Kirchberger, WO 9637668, EP 1,245,620, Krueger and George do not disclose an adhesion improvement component that is added to the breathable

thermoplastic film and/or the glass fiber-based substrate to improve adhesion between the breathable thermoplastic film or coated laminate and the glass fiber-based substrate, Applicant submits that independent claims 1 and 18 are patentable over Albertone, Kuhnel, Kirchberger, WO 9637668, EP 1,245,620, Krueger and George -- either taken alone or in combination -- on at least this basis.

Additionally, Applicant respectfully disagrees with Examiner that it would have been obvious to one of ordinary skill in the art to have selected the desired MVTR through a process of routine experimentation. The optimal MVTR range chosen for the claimed device was based on the preferred materials used for the underlayment and the addition of the adhesion improvement component as explained above. The thickness of the underlayment was not determined with routine experimentation as suggested by the Examiner. As such, Applicant respectfully requests that Examiner withdraw this argument from the above rejections.

Claims 2-5, 9-18 and 30-32 depend on claim 1. Since claim 1 is believed to be patentable over Albertone, Kuhnel, Kirchberger, WO 9637668, EP 1,245,620, Krueger and George, claims 2-5, 9-18 and 30-32 are believed to be patentable over Albertone, Kuhnel, Kirchberger, WO 9637668, EP 1,245,620, Krueger and George on the basis of their dependency on claim 1.

Claims 33-35 depend on claim 18. Since claim 18 is believed to be patentable over Albertone, Kuhnel, Kirchberger, WO 9637668, EP 1,245,620, Krueger and George, claims 33-35 are believed to be patentable over Albertone, Kuhnel, Kirchberger, WO 9637668, EP 1,245,620, Krueger and George on the basis of their dependency on claim 18.

**CONCLUSION**

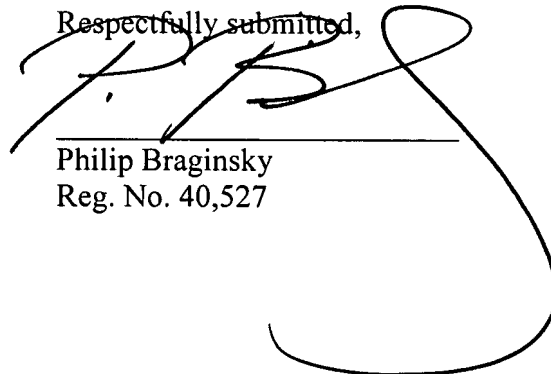
In view of the aforementioned remarks and amendments, the Applicants believe that each of the pending claims is in condition for allowance. If, upon receipt and review of this amendment, the Examiner believes that the present application is not in condition for allowance and that changes can be suggested which would place the claims in allowable form, the Examiner is respectfully requested to contact Applicants' undersigned counsel at the number provided below.

Applicant believes that there are no fees associated with this filing, however, the Director is hereby authorized to charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 03-1250, under Reference No. FDN-2815, Customer No. 43,309.

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Respectfully submitted,



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